

### **ABSTRACT OF THE DISCLOSURE**

Disclosed is a tunable wavelength semiconductor laser diode which comprises a FP(fabry-parrot) laser diode array for producing at least two light beams, a combiner for combining the light beams output by an end of the laser diode array, a lens for collimating the light beams output by another end thereof, 5 a grating for diffracting the light beams collimated by the lens, and a reflector for reflecting the light beams diffracted by the grating to feed the reflected light beams back to the laser diode array.